

Prospective Comparisons of Interventions for Anterior Knee Pain (FY02 – 2024)

Impact

The best course of action for treating patients with anterior knee pain may be a referral to physical therapy for instruction in therapeutic exercise. Knee braces are not always an effective treatment for this type of knee pain.

Description

Patients with anterior knee pain do not routinely see a physical therapist immediately. Primary care providers usually prescribed knee braces as a means of conservative management prior to a referral to physical therapy. However, knee brace manufacturers recommend that braces be utilized in conjunction with therapy -- not as a stand-alone treatment. The purpose of this initiative was to compare the outcomes of common treatments for anterior knee pain over three separate treatment groups: exercise (gold-standard and control), exercise and neoprene knee sleeve, and exercise and patella tracking brace.

Outcomes

- Statistical analysis of the data set that was obtained indicated that intervention by physical therapists for anterior knee pain - regardless of which intervention was given - showed an improvement in a Soldier's function and decrease in reported pain. There was no benefit shown from using knee braces for Soldiers. Therefore, the prescription of knee braces for this condition can be both ineffective and an unnecessary cost.
- The cost savings realized are two-fold: an immediate referral to physical therapy for Soldiers with knee pain can speed recovery and decrease lost training time. Secondly, the elimination of knee braces could save \$60,000 per training battalion per year (based on 100 soldiers/company requiring knee pain treatment, with 5 companies/battalion and 3 battalion cycles/year; knee brace cost = \$40). This cost savings would be even more substantial when calculated for an entire installation.

Innovative features

This initiative was innovative in that there had been no prior studies to validate the use of neoprene knee sleeve or the knee brace as treatment for anterior knee pain.

Lessons learned

- Soldiers with knee pain should be immediately referred to physical therapy for evaluation and treatment.
- The Institutional Review Board (IRB) process is lengthy and labor intensive. Sufficient time must be allowed for this process in advance of implementation of a new initiative. The IRB process may take up to one year, or longer.
- It generally takes longer than anticipated to gather the desired number of participants for a health initiative in order to collect enough outcomes to determine and validate program effectiveness.